

WHAT IS CLAIMED IS:

1. An information processing apparatus for receiving the input of a first data stream and a second data stream and for connecting said second data stream at a predetermined position of said first data stream and recording them, said information processing apparatus comprising:

separation means for separating each of said first data stream and said second data stream into video data and audio data;

first detection means for detecting the amount of deviation, with respect to time, between said video data and said audio data of said first data stream, which are separated by said separation means, and the amount of deviation, with respect to time, between said video data and said audio data of said second data stream, which are separated by said separation means;

first computation means for computing the amount of shift of said audio data of said second data stream with respect to said video data of said second data stream on the basis of said two amounts of deviation detected by said first detection means;

creation means for combining said video data of said first data stream and said second data stream, said audio

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second computation means for computing, based on said two coding rates detected by said second detection means, the amount of still image data inserted at the connection

point of said first data stream and said second data stream,  
wherein, when it is determined by said second  
computation means that the amount of data is not zero, said  
creation means further combines said still image data, of  
the amount of data computed by said second computation means,  
with said video data of said first data stream and said  
second data stream, said audio data of said first data  
stream and said second data stream, and the system data  
containing said amount of shift computed by said first  
computation means in order to create said third data stream.

3. An information processing apparatus according to  
Claim 1, wherein said audio data of said second data stream  
is shifted by said control means so that said audio data is  
played back continuously without being re-encoded.

4. An information processing apparatus according to  
Claim 1, further comprising:

reading control means for controlling reading of said  
first data stream recorded on said recording medium; and

input control means for controlling the input of said  
first data stream read by said reading control means into  
said separation means.

5. An information processing apparatus according to

Claim 1, wherein said first data stream and said second data stream are MPEG data streams.

6. An information processing method for use with an information processing apparatus for receiving the input of a first data stream and a second data stream and for connecting said second data stream at a predetermined position of said first data stream and recording them, said information processing method comprising the steps of:

separating each of said first data stream and said second data stream into video data and audio data;

detecting the amount of deviation, with respect to time, between said video data and said audio data of said first data stream, which are separated in said separation step, and the amount of deviation, with respect to time, between said video data and said audio data of said second data stream, which are separated in said separation step;

computing the amount of shift of said audio data of said second data stream with respect to said video data of said second data stream on the basis of said two amounts of deviation detected in said detection step;

combining said video data of said first data stream and said second data stream, said audio data of said first data stream and said second data stream, and system data containing said amount of shift computed in said computation



said second data stream with respect to said video data of  
said second data stream on the basis of said two amounts of  
deviation detected in said detection step;

combining said video data of said first data stream and said second data stream, said audio data of said first data stream and said second data stream, and system data containing said amount of shift computed in said computation step in order to create a third data stream;

controlling, based on said amount of shift computed in said computation step, said creation step in such a way that said audio data of said second data stream is shifted in time with respect to said video data of said second data stream corresponding thereto; and

controlling recording of said third data stream created in said creation step onto a recording medium.

8. An information processing apparatus into which is loaded a recording medium having recorded thereon a first data stream, said information processing apparatus comprising:

recording control means for controlling recording, on said recording medium, of a second data stream which is connected to a first position of said first data stream so that these streams are played back,

wherein said recording control means controls recording

of said second data stream in such a way that recording of said second data stream is started from a second position which is shifted by a predetermined time from said first position of said first data stream.

controlling recording, on said recording medium, of a second data stream which is connected to a first position of said first data stream so that these streams are played back,

10. A recording medium having recorded thereon a computer-readable program for use with an information processing apparatus into which is loaded a recording medium having recorded thereon a first data stream, said program comprising the step of:

said first data stream so that these streams are played back, wherein, in said recording control step, recording of said second data stream is controlled in such a way that recording of said second data stream is started from a second position which is shifted by a predetermined time from said first position of said first data stream.

11. An information processing apparatus into which is loaded a recording medium having recorded thereon a first data stream and a second data stream which is connected to a predetermined position of said first data stream so that these streams are played back, said information processing apparatus comprising:

reading control means for controlling reading of said first data stream and said second data stream which are recorded on said recording medium;

separation means for separating each of said first data stream and said second data stream, whose reading is controlled by the reading control means, to video data and audio data;

first detection means for detecting the amount of deviation, with respect to time, between said video data and said audio data of said first data stream, which are separated by said separation means, and the amount of deviation, with respect to time, between said video data and

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said audio data of said second data stream, which are separated by said separation means;

first computation means for computing the amount of shift of said audio data of said second data stream with respect to said video data of said second data stream on the basis of said two amounts of deviation detected by said first detection means;

delaying means for delaying said audio data of said second data stream;

control means for controlling, based on said amount of shift computed by said first computation means, said delaying means in such a way that said audio data of said second data stream is shifted in time with respect to said video data of said second data stream corresponding thereto; and

rewriting means for rewriting time information contained in said video data and said audio data of said second data stream.

12. An information processing apparatus according to Claim 11, further comprising:

second detection means for detecting the coding rate of said video data of one picture at the connection point of said first data stream with respect to said second data stream, and the coding rate of said video data of one

picture at the connection point of said second data stream with respect to said first data stream;

second computation means for computing, based on said two coding rates detected by said second detection means, the amount of still image data inserted at the connection point of said first data stream and said second data stream; and

insertion means for inserting said still image data, of the amount of data computed by said second computation means, into the connection point between said video data of said first data stream and said video data of said second data stream when it is determined by said second computation means that the amount of data is not zero.

13. An information processing method for use with an information processing apparatus into which is loaded a recording medium having recorded thereon a first data stream and a second data stream which is connected to a predetermined position of said first data stream so that these streams are played back, said information processing method comprising the steps of:

controlling reading of said first data stream and said second data stream, which are recorded on said recording medium;

separating each of said first data stream and said

second data stream, whose reading is controlled by the process of the reading control step, into video data and audio data;

detecting the amount of deviation, with respect to time, between said video data and said audio data of said first data stream, which are separated by the process of said separation step, and the amount of deviation, with respect to time, between said video data and said audio data of said second data stream, which are separated by the process of said separation step;

computing the amount of shift of said audio data of said second data stream with respect to said video data of said second data stream on the basis of said two amounts of deviation detected by the process of said detection step;

delaying said audio data of said second data stream;

controlling, based on said amount of shift computed by the process of said computation step, said delaying step in such a way that said audio data of said second data stream is shifted in time with respect to said video data of said second data stream corresponding thereto; and

rewriting time information contained in said video data and said audio data of said second data stream.

14. A recording medium having recorded thereon a computer-readable program for use with an information

processing apparatus into which is loaded a recording medium having recorded thereon a first data stream and a second data stream which is connected to a predetermined position of said first data stream so that these streams are played back, said program comprising the steps of:

controlling reading of said first data stream and said second data stream, which are recorded on said recording medium;

separating each of said first data stream and said second data stream, whose reading is controlled by the process of the reading control step, into video data and audio data;

detecting the amount of deviation, with respect to time, between said video data and said audio data of said first data stream, which are separated by the process said separation step, and the amount of deviation, with respect to time, between said video data and said audio data of said second data stream, which are separated by the process of said separation step;

computing the amount of shift of said audio data of said second data stream with respect to said video data of said second data stream on the basis of said two amounts of deviation detected by the process of said detection step;

delaying said audio data of said second data stream;

controlling, based on said amount of shift computed in

said computation step, said delaying step in such a way that said audio data of said second data stream is shifted in time with respect to said video data of said second data stream corresponding thereto; and

rewriting time information contained in said video data and said audio data of said second data stream.

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